

Claims

1. An apparatus for producing an aerosol, consisting of a gaseous component, especially air, such as sterile air, and a liquid component, especially a sterilizing agent such as peroxide, with an atomizing container (1), in which the liquid component is atomized continuously and mixed with the current of gas, passing through the atomizing container (1), wherein an atomizing nozzle (8) for the liquid component of the aerosol is disposed centrally in the lower region of the atomizing container (1) and means (2; 23) for forming an upwardly directed, bundled current of gas, which flows coaxially over the atomizing nozzle (8), are disposed in front of the atomizing nozzle (8).

2. The apparatus of claim 1, wherein an annular nozzle (2), the outlet of which is located approximately at the level of the outlet of the atomizing nozzle (8), is provided as a means of forming a current of gas.

3. The apparatus of claim 2, wherein the annular nozzle (2) comprises a cylindrical outer ring part (3) and an inner ring part (4), which, in the form of a circular conical section, is disposed in an outer ring part (3) and, together with the latter, forms the boundary of an upwardly expanding nozzle channel (5), which is closed off at the bottom and into which a pipeline (6) for supplying the gaseous components of the aerosol discharges radially.

4. The apparatus of one of the claims 1 to 3, wherein the atomizing nozzle (8) is constructed as an air jet, the one nozzle slot (9) of which, passing radially through a spherical nozzle body (10), is located at the level of the upper edge of the inner ring part (4) of the annular nozzle (2).

5. The apparatus of one of the claims 1 to 4, wherein the atomizing container (1) has a basic cylindrical shape.

6. The apparatus of one of the claims 1 to 5, wherein the container (1) is connected at the bottom with the upper end of a measuring container (11) for the liquid component of the aerosol.

7. The apparatus of claims 6, wherein the atomizing container (1) changes over at the bottom directly into the upper end of the measuring container (11).

8. The apparatus of claim 1, wherein the lower end of the atomizing container (1) is connected to the supplying pipeline (6) for the gaseous component encloses screens, which are disposed one above the other, as means of forming the bundled gas current.

9. The apparatus of claim 8, wherein the screens are combined into a screen package (23).

10. The apparatus of claims 8 or 9, wherein the supplying pipeline (6) for the gaseous component discharges over an elbow (25) laterally into a straight part (26) of a pipeline of a connecting piece (27), which is connected below the screen package (23) coaxially to the lower end of the atomizing container (1) and, over a return line (28), with the upper end of a separately set up measuring container (11) for the liquid component of the aerosol.

11. The apparatus of one of the claims 8 to 10, wherein a heating unit (24) is connected in the supplying pipeline (6) for the gaseous component.

12. The apparatus of one of the claims 8 to 11, wherein a heating unit (29) is connected in a discharging pipeline (22) connected to the upper end of an atomizing container (1).

13. The apparatus of one of the claims 8 to 12, wherein a shut-off valve, which can be actuated by means of an actuator, is provided in the supplying pipeline (6) for the gaseous component.

14. The apparatus of one of the claims 8 to 13, wherein a shut-off valve, which can be actuated by means of an actuator, is provided in the discharging pipeline .

15. The apparatus of one of the claims 1 to 14, wherein a connecting line (14), enclosing a pump (15), emerges from the lower end of the measuring container (11), is passed into the atomizing container (1) and carries the atomizing nozzle (8) at its end.

16. The apparatus of claims 1 to 15, wherein the measuring container (11) is connected in the region of its lower end to a reservoir (17) for the liquid component of the aerosol.

17. The apparatus of one of the claims 1 to 16, wherein the measuring container (11) has level contacts (19), which are disposed one above the other for checking the consumption, and limit contacts (20) for controlling the replenishment and a float (21), which interacts with the level contacts (19) and the limit contacts (20), is provided in the measuring container (11).

18. The apparatus of claim 17, wherein the float (21), over limit contacts (20), controls the actuation of a supplying valve (18) in the pipeline (16), connecting the reservoir (17) and the measuring container (11).

19. The apparatus of one of the claims 1 to 18, wherein a flow meter (34) is provided in the pipeline (14) connecting the measuring container (11) and the atomizing nozzle (8).

20. The apparatus of one of the claims 19, wherein at least one inspection opening, closed off by a sight glass (13), is provided in the side wall of the atomizing container (1).

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